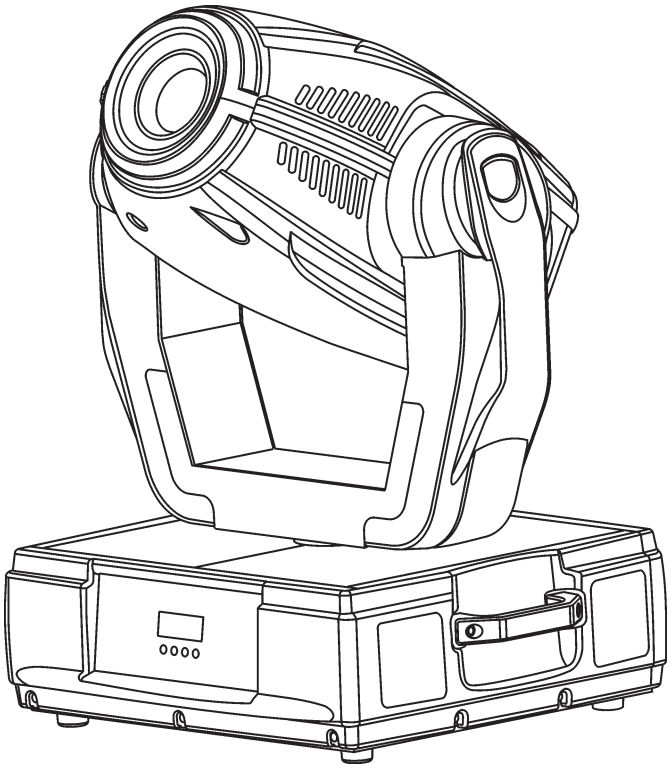
Color Spot 575 AT



atseries

USER MANUAL

Version: 1.3

ROBE® Show Lighting s.r.o. • Czech Republic • www.robe.cz

Color Spot 575 AT

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CAUTION! Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOU INITIAL START - UP!

1. Safety instructions

Every person involved with installation and maintenance of this device have to:
- be qualilfied
- follow the instructions of this manual

CAUTION! Be careful with your operations. With a high voltage you can suffer a dangerous electric shock when touching the wires!

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Important:
The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!

Make sure that the available voltage is not higher than stated on the rear panel.

Always plug in the power plug least. Make sure that the power-switch is set to off -position before you connect the device to the mains. The power-plug has to be accessable after installing the device.

Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.

This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.

The electric connection, repairs and servicing must be carried out by a qualified employee.
Do not connect this device to a dimmer pack.

Do not switch the fixture on and off in short intervals as this would reduce the lamp's life.

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

Do not touch the device's housing bare hands during its operation (housing becomes hot)!
For replacement use lamps and fuses of same type and rating only.

CAUTION ! EYEDAMAGES !
Avoid looking directly into the light source (meant especially for epileptics) !

2. Operating determinations

This device is a moving-head spot for creating decorative effects and was designed for indoor use only.

If the device has been exposed to drastic temperature uctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

Never run the device without lamp!

Do not shake the device. Avoid brute force when installing or operating the device.

Never lift the fixture by holding it at the projector-head, as the mechanics may be damaged. Always hold the fixture at the transport handles.

When choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

The minimum distance between light-output and the illuminated surface must be more than 2 meters.

Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.

Always fix the fixture with an appropriate safety-rope. Fix the safety-rope at the correct holes only.

Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.

The lamp must never be ignited if the objective-lens or any housing-cover is open, as discharge lamps may explose and emit a high ultraviolet radiation, which may cause burns.

The maximum ambient temperature 40° C must never be exceeded. Otherwise, the lamp is switched off and the fixture is out of operation for 5 minutes.

CAUTION! The lens has to be replaced when it is obviously damaged, so that its function is impaired, e. g. due to cracks or deep scratches!

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!

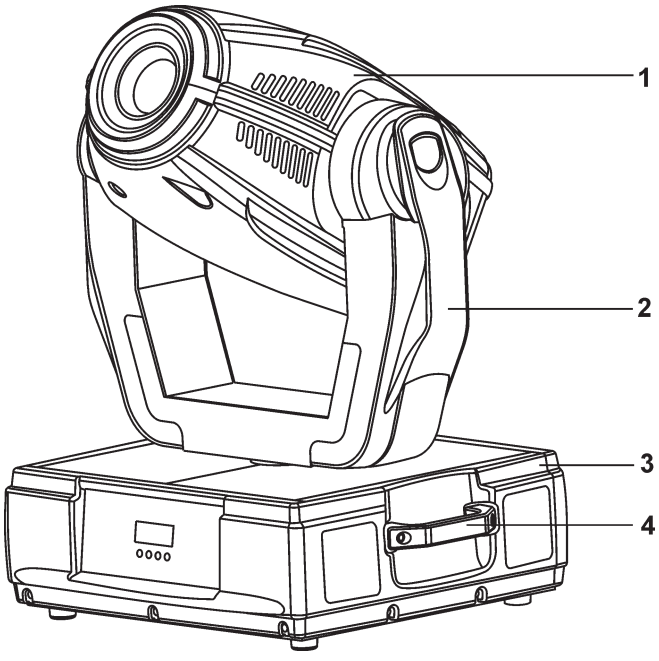
CAUTION! The lamp has to be replaced when it is damaged or deformed due to the heat!

Please use the original packaging if the device is to be transported.

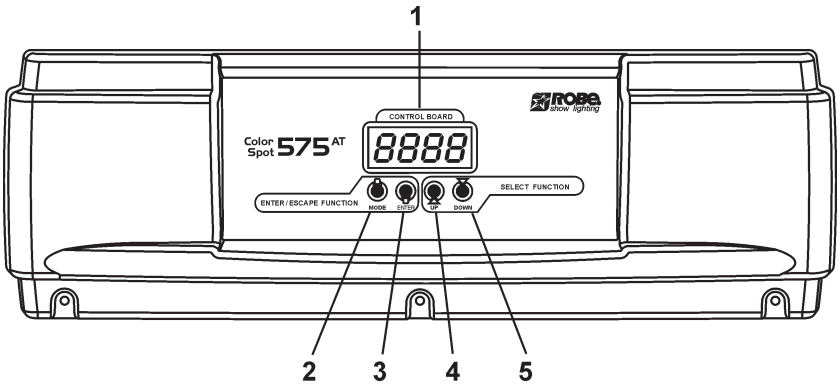
Please consider that unauthorized modifications on the device are forbidden due to safety reasons!

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, burns due to ultraviolet radiation, lamp explosion, crash etc.

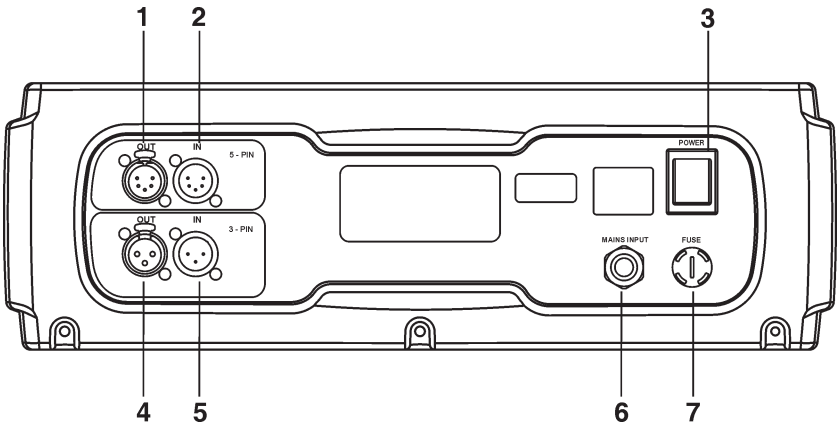
3. Description of the device



1 - Moving head
2 - Yoke
3 - Base
4 - Handle



Front panel of the base
1 - Display
2 - Mode-button
3 - Enter-button
4 - Up-button
5 - Down-button



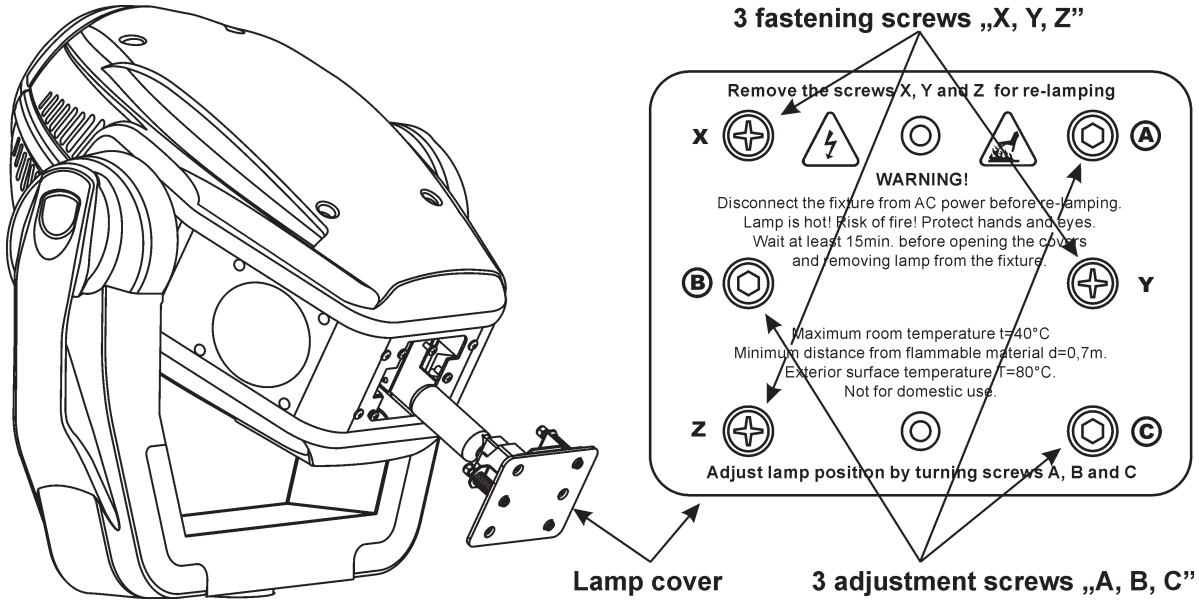
Rear panel of the base
1 - 5-pin DMX output
2 - 5-pin DMX input
3 - Power switch
4 - 3-pin DMX output
5 - 3-pin DMX input
6 - Power cord
7 - Fuse holder

4. Installation

4.1 Fitting the lamp

DANGER ! Install the lamps with the device switched off only. Unplug from mains before !

To insert the lamp MSR 575W/2 loosen the lamp cover at the rear of head (see the drawings) by removing the 3 fastening screws which are marked **„X,Y,Z"**. Carefully pull out the cover with the lamp socket assembly.If changing the lamp, remove the old lamp from the socket. Insert the lamp to the socket.
Do not install a lamp with a higher wattage! A lamp like this generates temperatures the device is not designed for. Damages caused by non-observance are not subject to warranty. Please follow the lamp manufacturer's notes! Do not touch the glass--bulb with bare hands during the installation! Make sure that the lamp is installed tightly into the lampholder system.
Reclose the lamp cover and tighten the 3 screws.
Before striking the lamp, reset the **"LAti"**and **"LASt"** counter s in the menu of the Control Board, by pressing the **"Up"** and **"Down"** buttons in one time and then confirming with the **Enter**-button.


3 fastening screws „X, Y, Z"
Remove the screws X, Y and Z for re-lamping
X
A
WARNING!
Disconnect the fixture from AC power before re-lamping.
Lamp is hot! Risk of fire! Protect hands and eyes.
Wait at least 15min. before opening the covers
and removing lamp from the fixture.
B
Y
Maximum room temperature t=40°C
Minimum distance from flammable material d=0,7m.
Exterior surface temperature T=80°C.
Not for domestic use.
Z
C
Adjust lamp position by turning screws A, B and C
Lamp cover
3 adjustment screws „A, B, C"

Do not operate this fixture with opened housing-cover!

4.2 Lamp adjustment

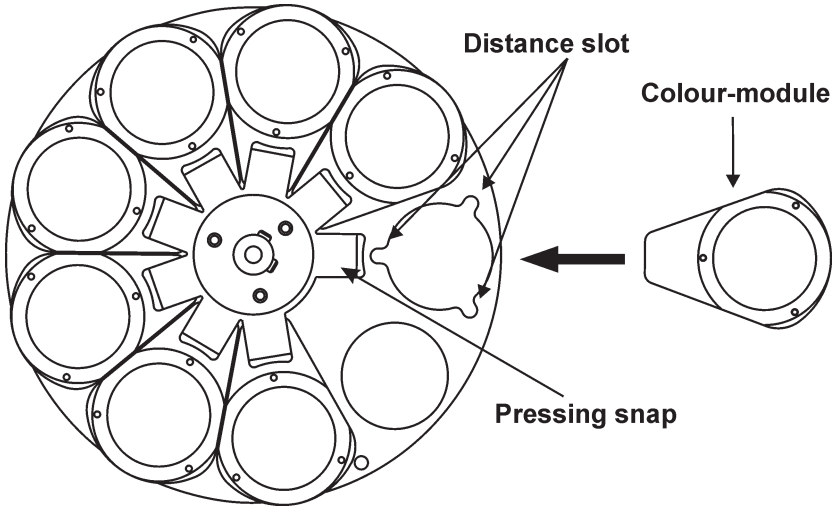
The ColorSpot 575 AT lamp holder is aligned at the factory. Due to differences between lamps, fine adjustment may improve light performance.
Strike the lamp,open the shutter and the iris,set the dimmer intensity onto 100% and focus the light on a at surface (wall). Center a hot-spot(the brightest part of the image) by using the 3 adjustment screws **„A, B, C"**. Turn one screw after another a quarter-turn clokwise(counter-clokwise) to set the hot-spot in the center of the image. If you cannot detect the hot-spot, adjust the lamp until the light is evenly distributed.

4.3 Inserting / Exchanging colours and gobos

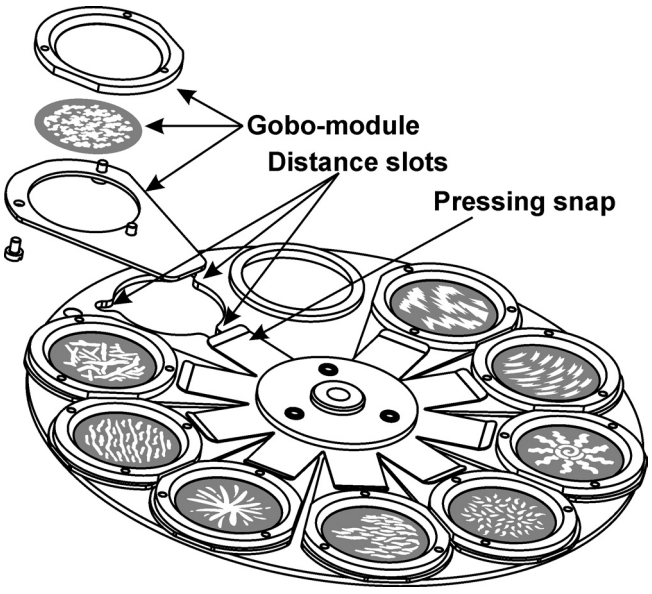
DANGER! Install the colours and gobos with the device switched off only. Unplug from mains before!

If you wish to use other forms and patterns as the standard gobos, or if colours are to be exchanged, open the top cover of the head by loosening 4 quarter-turn fasteners on the top cover.

Colour wheel:
Gently bend out the colour module to release it from the 3 distance slots and eject it from the pressing snap.
Put the new colour module back under the pressing snap and push it to the distance slots.

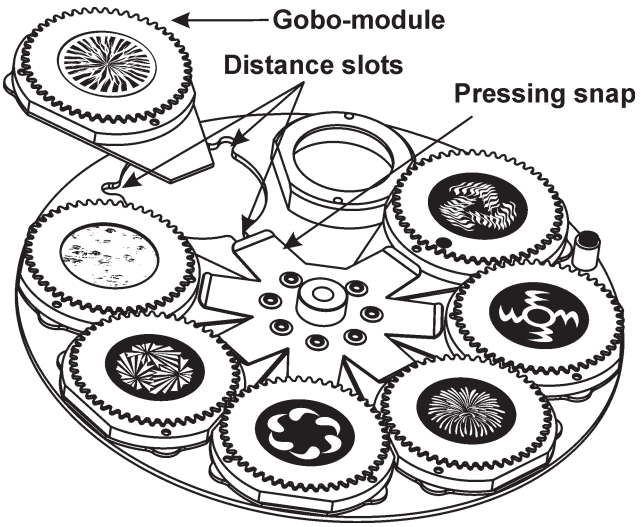


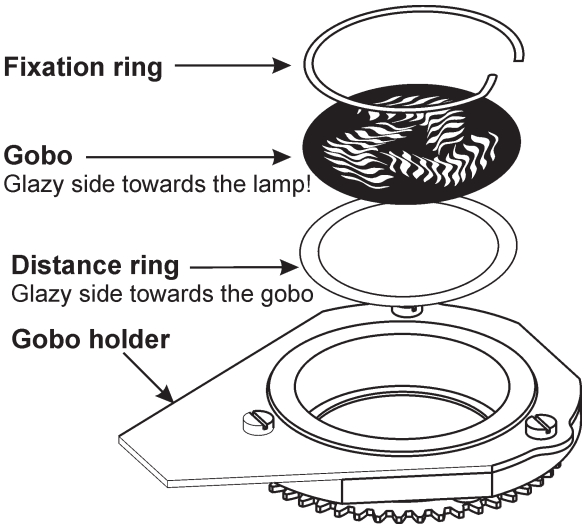
Stat. gobo wheel:
Gently bend out the gobo module to release it from the 3 distace slots and eject it from the pressing snap.
Put the new gobo module back under the pressing snap and push it to the distace slots.



Rotating gobo wheel:

Gently bend out the gobo module to release it from the distance slots and eject it from the pressing snap.
Press the ends of the fixation ring together with an appropriate tool and remove it from the gobo holder. Remove the gobo and insert the new gobo. Press the ends of the fixation ring together and insert it in the front of the gobo.
Put the gobo module back under the pressing snap and push it to the distance slots.

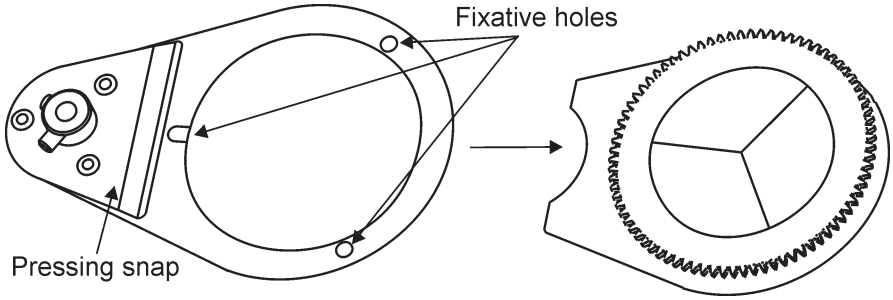




CAUTION! The gobo holder with the magnet must be placed in the same position as it was placed before gobo replacement!

4.4 Replacing the 3-facet prism

Gently bend out the prism holder to release it from the fixative holes of prism module and eject it from the pressing snap.
Put the new prism holder back under the pressing snap and push it to the 3 fixative holes.



4.5 Connection to the mains

Verify the power supply settings before applying power!

If you wish to change the power supply settings, see the chapter below.
Connect the fixture to the mains with the enclosed power plug. If you need to install other power plug on the power cable, follow the identification table below.
The earth has to be connected!

Do not connect the fixture to a dimmer system!

The occupation of the connection-cables is as follows:

Cable (EU)	Cable (US)	Pin	International
Brown	Black	Live	L
Liht blue	White	Neutral	N
Yellow/ Green	Green	Earth	⏚

4.6 Changing the power supply settings-magetic ballast

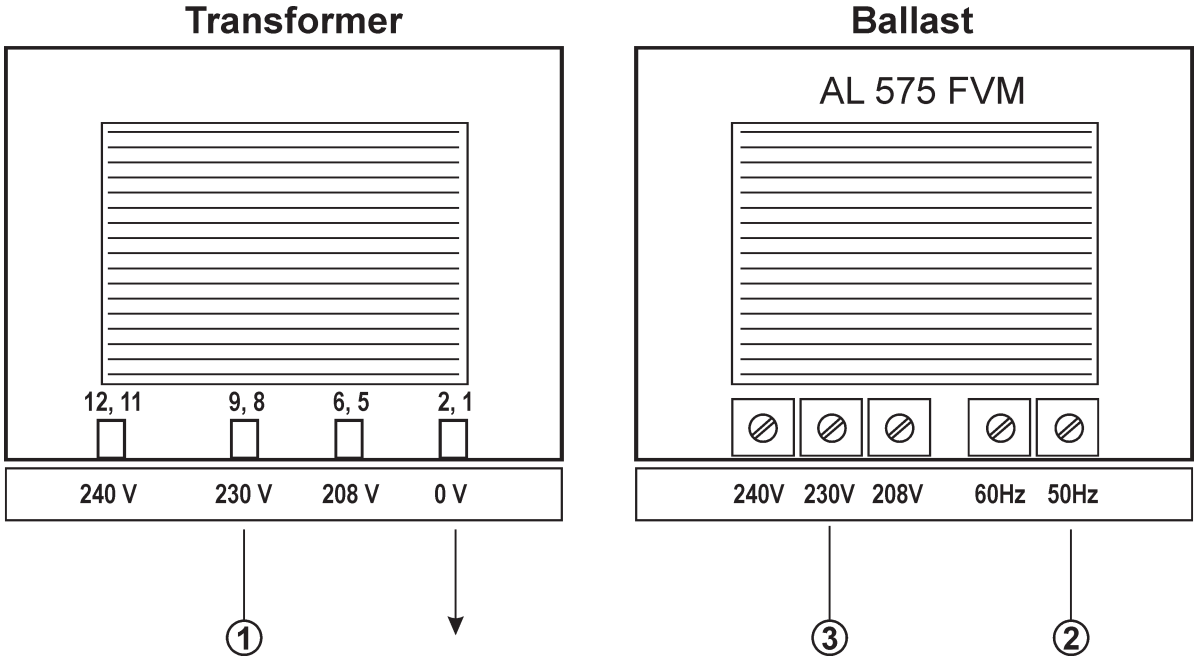
Both the transformer and the ballast must be connected correctly for the local AC voltage and frequency.
The wrong settings can cause poor performance or demage of the moving head. The factory settings are printed next to the power switch.

If you want to change the power supply settings, follow the instructions:

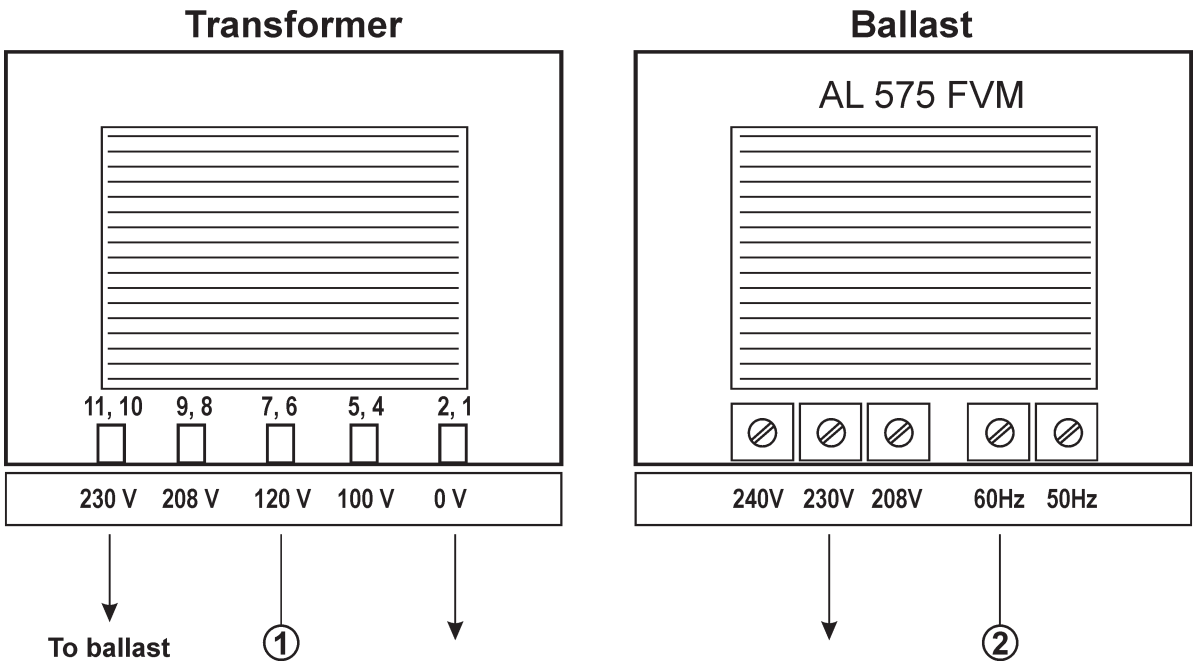
1. Disconnect the fixture from AC power.
2. Remove the top base cover (closest to the power cord) by loosening the 9 screws.
3. Move the wire ① on the transformer connection block to the position according to the desired voltage.
4. Move the wires ② and ③ on the ballast connection block to the position according to the desired frequency (voltage).
5. Close the base before applying AC power.

Examples:

Power supply settings: 230V / 50Hz



Power supply settings: 120V / 60Hz



4.7 Rigging the fixture

DANGER TO LIFE!
Please consider the respective national norms during the installation!
The installation must only be carried out by an authorized dealer!

The installation of the projector has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate catch net. This secondary safety attachment must be constructed in a way that no part of the installation can fall down if the main attachment fails.

When rigging, derigging or servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert after every four year in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

The projector should be installed outside areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the projector. If you lack these qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury and.or damage to property.

The projector has to be installed out of the reach of people.

If the projector shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The projector must never be fixed swinging freely in the room.

Caution: Projectors may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do NOT install the projector!

Before rigging make sure that the installation area can hold a minimum point load of 10 times the projector's weight.

Danger of fire ! When installing the device, make sure there is no highly in ammable material (decoration articles, etc.) in between a distance of min. 0,5 m.

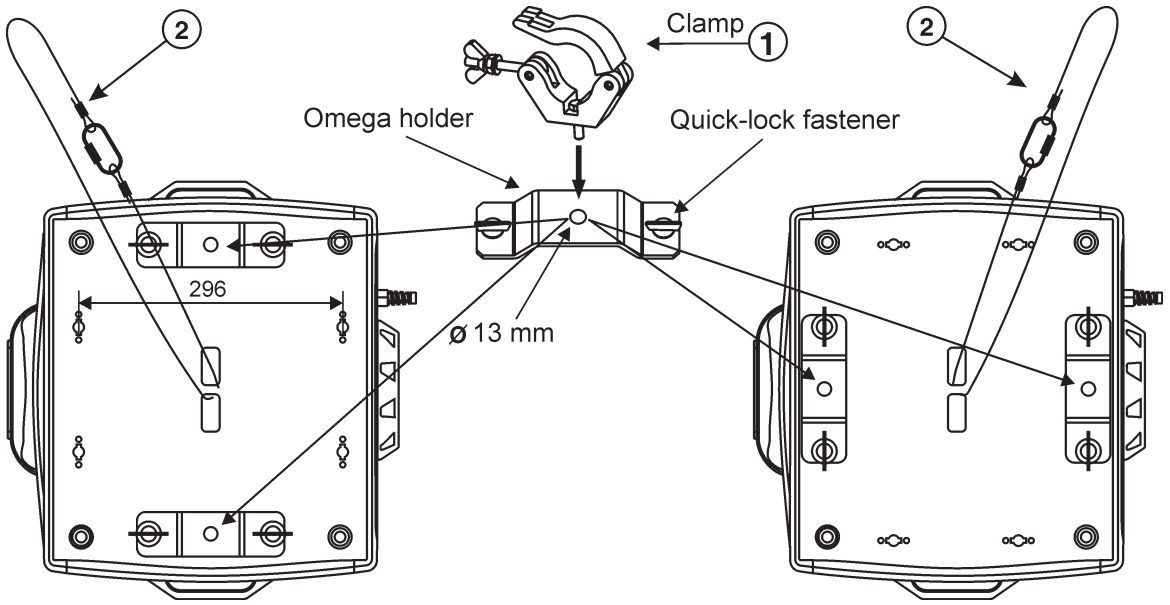
Warning ! Use 2 clamps to rig the fixture on the truss. Follow the instructions mentioned at the bottom of the base. Make sure that the device is fixed properly! Ensure that the structure (truss) to which you are attaching the fixtures is secure.

The projector can be placed directly on the stage oor or rigged in any orientation on a truss without altering its operation characteristics.
For overhead use, always install a safety-rope that can hold at least 10 times the weight of the fixture. You must only use safety-ropes with screw-on carabines. Pull the safety-rope through the two apertures on the bottom of the base and over the trussing system etc. Insert the end in the carabine and tighten the fixation screw.

Fixation via the omega holders

1. Bolt each clamp (1) to the omega holder (4) with M12 bolt and lock nut through the hole in the holder.
2. Fasten the omega holders on the bottom of the base by inserting both quick-lock fasteners (3) into the holes of the base and tighten fully clockwise.
3. Fasten the safety-rope (2) through the two apertures on the bottom of the base and over the trussing system.

When installing fixtures side-by-side, avoid illuminating one fixture with another!

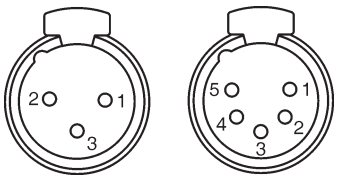


DANGER TO LIFE! ***Before taking into operation for the first time, the installation has to be approved by an expert!***

4.8 DMX-512 connection/connection between fixtures

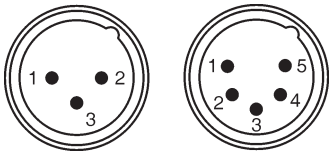
The fixture is equipped with both 3-pin and 5-pin XLR sockets for DMX input and output. The sockets are wired in parallel. Only use a shielded twisted-pair cable designed for RS-485 and 3-pin or 5-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

DMX - output
XLR mounting-sockets (rear view):



1 - Shield
2 - Signal (-)
3 - Signal (+)
4 - Not connected
5 - Not connected

DMX-input
XLR mounting-plugs (rear view):



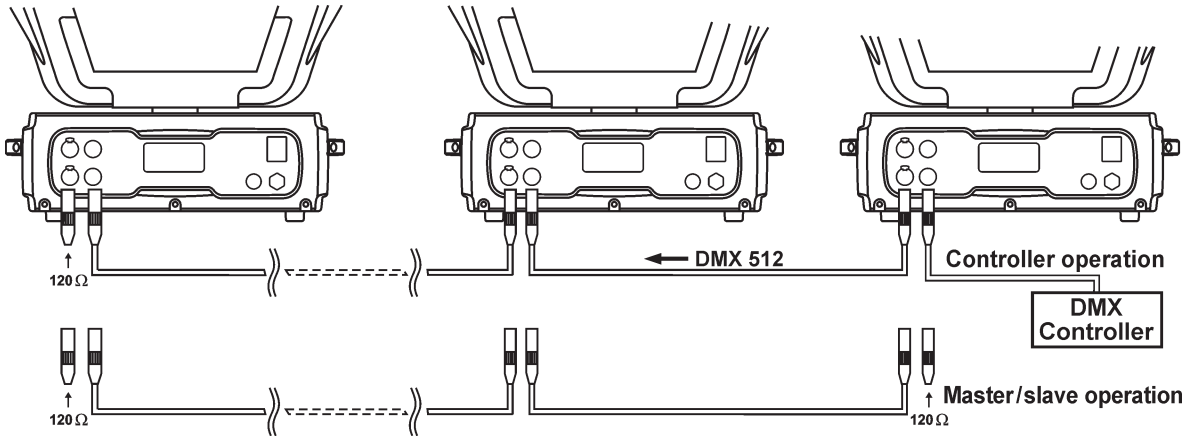
If you are using the standard DMX controllers, you can connect the DMX output of the controller directly with the DMX input of the first fixture in the DMX-chain. If you wish to connect DMX-controllers with other XLR-outputs, you need to use adapter-cables.

Building a serial DMX-chain:

Connect the DMX-output of the first fixture in the DMX-chain with the DMX-input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.
Caution: At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 Ohm resistor between Signal (–) and Signal (+) into a 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

Building a master/slave-chain:

Connect the DMX-output of the master fixture in the data-chain with the DMX-input of the first slave. Always connect output with the input of the next slave until all slaves are connected (up to 9 fixtures).
Caution: It's necessary to insert the XLR termination plug (with 120 Ohm) into the input of the master fixture and into the output of the last slave fixture in the link in order to ensure proper transmission on the data link.



5. DMX protocol - version 1.0

Mode/Channel				Value	Function	Type of control
1	2	3	4			
1	**1**	**1**	**1**	0 - 255	**Pan** Pan movement by 530°	proportional
2	**2**	**2**	**2**	0 - 255	**Pan Fine** Fine control of pan movement	proportional
3	**3**	**3**	**3**	0 - 255	**Tilt** Tilt movement by 280°	proportional
4	**4**	**4**	**4**	0 - 255	**Tilt fine** Fine control of tilt movement	proportional
5	**5**	**5**	**5**		**Pan/Tilt speed, Pan/Tilt time**	
				0	Max. speed (tracking mode)	step
					***P./T. speed*-set Speed Mode in menu: P.t. Mo.**	
				1 - 255	Speed from max. to min. (vector mode)	proportional
					***P./T. time* - set Time Mode in menu: P.t. Mo.**	
				1 - 255	Time from 0,1 s to 25,5 s. *	proportional
6	**6**	**6**	**6**		**Power/Special functions**	step
				0 - 49	Reserved To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 s. („Shutter, Strobe" channel 25 (18, 27, 20) must be at range: 0-31 DMX).**	
				50 - 59	Pan/Tilt speed mode	step
				60 - 69	Pan/Tilt time mode	step
				70 - 79	Blackout while pan/tilt moving	step
				80 - 89	Disabled blackout while pan/tilt moving	step
				90 - 99	Blackout while colour wheel moving	step
				100 - 109	Disabled blackout while colour wheel moving	step
				110 - 119	Blackout while gobo wheel moving	step
				120 - 129	Disabled blackout while gobo wheel moving	step
					To activate following functions, stop in DMX value for at least 3 s.	step
				130 - 139	Lamp On, reset (total reset except pan/tilt reset)	
				140 - 149	Pan/Tilt reset	step
				150 - 159	Colour wheels reset	step
				160 - 169	Gobo wheels reset	step
				170 - 179	Dimmer/ Strobe reset	step
				180 - 189	Focus/Zoom/Frost reset	step
				190 - 199	Iris/Prism reset	step
				200 - 209	Total reset	step
				210 - 229	Reserved	step
				230 - 239	Lamp Off	step
				240 - 255	Reserved	step
		7	**7**		**Pan/Tilt macro selection**	
				0 - 9	Disabled pan/tilt macro	step
				10 - 31	Reserved	step
				32 - 63	Figure of circle (from small to large)	proportional
				64 - 95	Figure of horizontal eight (from small to large)	proportional
				96 - 127	Figure of vertical eight (from small to large)	proportional
				128 - 159	Figure of rectangle (from small to large)	proportional
				160 - 191	Figure of triangle (from small to large)	proportional
				192 - 223	Figure of five-pointed star (from small to large)	proportional
				224 - 255	Figure of cross (from small to large)	proportional

Notes: * Short times are not used for long tracks (e.g. 0,5 s for track 0-255 DMX). Times are restricted by mechanical parameters of the fixture.

** The switch-functions have priority to the equivalent functions in menu „Personality" but the setting by DMX is not saved to the memory (after switching the fixture on, the setting from menu „Personality" is loaded and after that can be changed by DMX value on the channel 6).

DMX protocol		**menu „PerS"**
50 - 59	Pan/Tilt speed mode	P.t.Mo ---> SP.Mo.
60 - 69	Pan/Tilt time mode	P.t.Mo ---> Ti.Mo.
70 - 79	Blackout while pan/tilt moving	A.blc. --> P.t.M. --> On
80 - 89	Disabled blackout while pan/tilt moving	A.blc. --> P.t.M. --> Off
90 - 99	Blackout while colour wheel moving	A.blc. --> Col.M. --> On
100 - 109	Disabled blackout while colour wheel moving	A.blc. --> Col.M. --> Off
110 - 119	Blackout while gobo wheel moving	A.blc. --> Col.M. --> On
120 - 129	Disabled blackout while gobo wheel moving	A.blc. --> Col.M. --> Off

Mode/Channel				Value	Function	Type of control
1	2	3	4			
		8	8		**Pan/Tilt macro speed** *Set pan/tilt speed (channel 5) to 0*	
				0	No macro generation	step
				1 - 127	Macro generation from fast to slow-forwards	proportional
				128 - 129	No macro generation	step
				130 - 255	Macro generation from slow to fast-backwards	proportional
7	7	9	9		**Colour wheel 1** ***Continual Positioning*** *In range 0-129 DMX is possible fine colour positioning- set value on channel 8 (10)*	
				0	Open/white	proportional
				13	Light blue	proportional
				26	Red	proportional
				39	Blue	proportional
				52	Light green	proportional
				65	Yellow	proportional
				78	Magenta	proportional
				91	Cyan	proportional
				104	Green	proportional
				117	Orange	proportional
				128 - 129	White	proportional
					Positioning	
				130 - 136	Light blue	step
				137 - 143	Red	step
				144 - 149	Blue	step
				150 - 156	Light green	step
				157 - 163	Yellow	step
				164 - 169	Magenta	step
				170 - 176	Cyan	step
				177 - 183	Green	step
				184 - 189	Orange	step
				190 - 215	Forwards rainbow effect from fast to slow	proportional
				216 - 217	No rotation	step
				218 - 243	Backwards rainbow effect from slow to fast	proportional
				244 - 249	Random colour selection by audio control	step
					(Set microphone sensitivity in menu „Personality”)	
				250 - 255	Auto random colour selection from fast to slow	proportional
8		10			**Colour wheel 1 - fine positioning**	
				0 - 255	Fine positioning	proportional
9	8	11	10		**Colour wheel 2** ***Continual Positioning*** *In range 0-129 DMX is possible fine colour positioning- set value on channel 10 (12)*	
				0	Open/white	proportional
				14	Deep red	proportional
				28	Deep blue	proportional
				42	Pink	proportional
				56	Cyan	proportional
				70	Magenta	proportional
				84	Yellow	proportional
				98	3200 K correction filter	proportional
				112	UV Filter	proportional
				128 - 129	White	proportional
					Positioning	
				130 - 136	Deep red	step
				137 - 144	Deep blue	step
				145 - 151	Pink	step
				152 - 159	Cyan	step
				160 - 166	Magenta	step
				167 - 174	Yellow	step
				175 - 181	3200 K correction filter	step
				182 - 189	UV Filter	step
				190 - 215	Forwards rainbow effect from fast to slow	proportional
				216 - 217	No rotation	step
				218 - 243	Backwards rainbow effect from slow to fast	proportional
				244 - 249	Random colour selection by audio control	step
					(Set microphone sensitivity in menu „Personality”)	
				250 - 255	Auto random colour selection from fast to slow	proportional

Mode/Channel				Value	Function	Type of control
1	2	3	4			
10		12			**Colour wheel 2 - fine positioning**	
				0 - 255	Fine positioning	proportional
11	9	13	11		**Static gobo wheel**	
					Continual Positioning	
				0 - 255	*In range 0-64 DMX is possible fine gobo positioning - set value on channel 12 (14)*	
				0	Open/hole	proportional
				7	Gobo 1 (15010608)	proportional
				13	Gobo 2 (15010609)	proportional
				19	Gobo 3 (15010700)	proportional
				26	Gobo 4 (15010701)	proportional
				32	Gobo 5 (15010702)	proportional
				39	Gobo 6 (15010703)	proportional
				45	Gobo 7 (15010704)	proportional
				51	Gobo 8 (15010705)	proportional
				58	Gobo 9 (15010706)	proportional
				64	Open/hole	proportional
					Positioning	
				65 - 69	Gobo 1	step
				70 - 74	Gobo 2	step
				75 - 79	Gobo 3	step
				80 - 84	Gobo 4	step
				85 - 89	Gobo 5	step
				90 - 94	Gobo 6	step
				95 - 99	Gobo 7	step
				100 - 104	Gobo 8	step
				105 - 109	Gobo 9	step
					Shaking gobos from slow to fast	
				110 - 119	Gobo 1	proportional
				120 - 129	Gobo 2	proportional
				130 - 139	Gobo 3	proportional
				140 - 149	Gobo 4	proportional
				150 - 159	Gobo 5	proportional
				160 - 169	Gobo 6	proportional
				170 - 179	Gobo 7	proportional
				180 - 189	Gobo 8	proportional
				190 - 199	Gobo 9	proportional
				200 - 201	Open/hole	
				202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
				222 - 223	No rotation	
				224 - 243	Backwards gobo wheel rotation from slow to fast	proportional
				244 - 249	Random gobo selection by audio control	step
					(Set microphone sensitivity in menu „Personality")	
				250 - 255	Auto random gobo selection from fast to slow	proportional
12		14			**Fine static gobo wheel**	
				0 - 255	Fine positioning	proportional
13	10	15	12		**Rotating gobo wheel**	
					Index - set indexing on channel 14 (11/16/13)	
				0 - 3	Open/hole	step
				4 - 7	Gobo 1 (15030017)	step
				8 - 11	Gobo 2 (15040011)	step
				12 - 15	Gobo 3 (15020149)	step
				16 - 19	Gobo 4 (15020150)	step
				20 - 23	Gobo 5 (15020151)	step
				24 - 27	Gobo 6 (15020152)	step
				28 - 31	Gobo 7 (15020153)	step
					Rotation - set rotation on channel 14 (11/16/13)	
				32 - 35	Gobo 1	step
				36 - 39	Gobo 2	step
				40 - 43	Gobo 3	step
				44 - 47	Gobo 4	step
				48 - 51	Gobo 5	step
				52 - 55	Gobo 6	step
				56 - 59	Gobo 7	step

Mode/Channel				Value	Function	Type of control
1	2	3	4			
					Shaking gobos from slow to fast	
					Index - set indexing on channel 14 (11/16/13)	
				60 - 69	Gobo 1	proportional
				70 - 79	Gobo 2	proportional
				80 - 89	Gobo 3	proportional
				90 - 99	Gobo 4	proportional
				100 - 109	Gobo 5	proportional
				110 - 119	Gobo 6	proportional
				120 - 129	Gobo 7	proportional
					Shaking gobos from slow to fast	
					Rotation - set rotation on channel 14 (11/16/13)	
				130 - 139	Gobo 1	proportional
13	**10**	**15**	**12**	140 - 149	Gobo 2	proportional
				150 - 159	Gobo 3	proportional
				160 - 169	Gobo 4	proportional
				170 - 179	Gobo 5	proportional
				180 - 189	Gobo 6	proportional
				190 - 199	Gobo 7	proportional
				200 - 201	Open/hole	step
				202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
				222 - 223	No rotation	
				224 - 243	Backwards gobo wheel rotation from slow to fast	proportional
				244 - 249	Random gobo selection by audio control	step
					(Set microphone sensitivity in menu „Personality")	
				250 - 255	Auto random gobo selection from fast to slow	proportional
					Gobo indexing and rotation	
					Gobo indexing - set position on channel	
				0 - 255	Gobo indexing	proportional
14	**11**	**16**	**13**		***Gobo rotation - set position on channel***	
				0	No rotation	step
				1 - 127	Forwards gobo rotation from fast to slow	proportional
				128 - 129	No rotation	step
				130 - 255	Backwards gobo rotation from slow to fast	proportional
15		**17**			**Gobo fine indexing**	
				0 - 255	Fine indexing	proportional
					Prism	
				0 - 19	Open position (hole)	step
				20 - 127	3-facet rotating prism	step
				128 - 255	***Prism/gobo macros***	
				128 - 135	Macro 1	step
				136 - 143	Macro 2	step
				144 - 151	Macro 3	step
				152 - 159	Macro 4	step
				160 - 167	Macro 5	step
16	**12**	**18**	**14**	168 - 175	Macro 6	step
				176 - 183	Macro 7	step
				184 - 191	Macro 8	step
				192 - 199	Macro 9	step
				200 - 207	Macro 10	step
				208 - 215	Macro 11	step
				216 - 223	Macro 12	step
				224 - 231	Macro 13	step
				232 - 239	Macro 14	step
				240 - 247	Macro 15	step
				248 - 255	Macro 16	step
					Prism rotation	
				0	No rotation	step
17	**13**	**19**	**15**	1 - 127	Forwards rotation from fast to slow proportional	proportional
				128 - 129	No rotation	step
				130 - 255	Backwards rotation from slow to fast	proportional

Mode/Channel				Value	Function	Type of control
1	2	3	4			
					Frost	
				0	Open	step
				1 - 179	Frost from 0% to 100%	proportional
18	**14**	**20**	**16**	180 - 189	100% frost	proportional
				190 - 211	Pulse closing from slow to fast	proportional
				212 - 233	Pulse opening from fast to slow	proportional
				234 - 255	Ramping from fast to slow	proportional
19		**21**			**Frost fine**	
				0 - 255	Fine frost	proportional
					Iris	
				0	Open	step
				1 - 179	From max.diameter to min.diameter	proportional
				180 - 191	Closed	step
					Pulse effects with Iris blackout	
20	**15**	**22**	**17**	192 -219	Pulse opening from slow to fast	proportional
				220 - 247	Pulse closing from fast to slow	proportional
				248 - 249	Random pulse opening (fast)	step
				250 - 251	Random pulse opening (slow)	step
				252 - 253	Random pulse closing (fast)	step
				254 - 255	Random pulse closing (slow)	step
21		**23**			**Iris fine**	
				0 - 255	Iris fine	proportional
					Zoom	
					Zoom without focus corection	
				0 - 39	Zoom 15°	step
				40 - 79	Zoom 18°	step
22	**16**	**24**	**18**	80 - 127	Zoom 22°	step
					*Zoom with focus corection ****	
				128 - 169	Zoom 15°	step
				170 - 219	Zoom 18°	step
				220 - 255	Zoom 22°	step
23	**17**	**25**	**19**		**Focus**	
				0 - 255	Coarse focus	proportional
24		**26**			**Focus fine**	proportional
				0 - 255	Fine focus adjustment	
					Shutter, Strobe	
				0 - 31	Shutter closed	step
				32 - 63	No function (Shutter open)	step
				64 - 95	Strobe-effect from slow to fast	proportional
25	**18**	**27**	**20**	96 - 127	No function (Shutter open)	step
				128 - 143	Opening pulse in sequences from slow to fast	proportional
				144 - 159	Closing pulse in sequences from fast to slow	proportional
				160 - 191	No function (Shutter open)	step
				192 - 223	Random strobe-effect from slow to fast	proportional
				224 - 255	No function (Shutter open)	step
26	**19**	**28**	**21**	0 - 255	**Dimmer** Coarse gradual adjustment of the dimmer intensity from 0% to 100%	proportional
27		**29**			**Dimmer fine**	
				0 - 255	Dimmer intensity fine	proportional

*** The function improves the image on the wall if the zoom changes
(its effect is the best for gobos from rot. gobo wheel and for distance = 6 m)

6. Controller mode

The fixtures are individually addressed on a data link and connected to the controller. The fixtures respond to the DMX signal from the controller.

6.1 DMX addressing

The control panel on the front panel of the fixture allows you to assign the DMX fixture address, which is defined as the first channel from which the ColorSpot 575 AT will respond to the controller.
If you set, for example, the address to channel 18, the ColorSpot 575 AT will use the channel 18 to 34 for control (if mode 2 is selected).
Please, be sure that you don't have any overlapping channels in order to control each ColorSpot 575 AT correctly and independently from any other fixture on the DMX data link.
If two, three or more ColorSpot 575 AT are addressed similarly, they will work similarly.
For address setting, please refer to the instructions under „Addressing" (menu **„A001"**).

Controlling:

After having addressed all ColorSpot 575 AT, you may now start operating these via your lighting controller.
Note: After switching on, the ColorSpot 575 AT will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX-input, the display will start to ash **„A001"** with actually set address.
This situation can occur if:
- the 3 PIN (5pin) XLR plug (cable with DMX signal from controller) is not connected with the input of the ColorSpot 575 AT
- the controller is switched off or defective, the cable or connector is defective or the signal wires are swap in the input connector.

Note: It's necessary to insert the XLR termination plug (with 120 Ohm) to the last fixture in the link in order to ensure proper transmission on the DMX data link.

6.2 Remotely controllable functions

Lamp

The ColorSpot 575 AT is to be operated with a Philips MSR 575/2.
A relay inside of the ColorSpot 575 AT allows you to switch on and off the lamp via the control panel or via your DMX--controller without affecting the rest of the lighting.
To switch On/Off the lamp, please refer to „Switching On/Off the lamp" (menu **„LAMP"**).
Note: It is also important to note, that the discharge lamp is cold restrike types, that means, that they have to be cold before re-striking. For this reason, you have to wait 5 minutes (max. speed of fan must be adjusted) after having switched Off the lamp before you can switch it back „On" again. If you try to switch „On" the lamp within 5 minutes after having switched it „Off", the ColorSpot 575 AT will store this information and automatically ignite the lamp when the 5 minutes period has expired. The message **„HEAt"** will appear on the control panel display of the ColorSpot 575 AT. If the ignition of the lamp is seven times unsuccessful, on the display will appear **„LA.Er"**, meaning that the lamp could be damaged or even missed, or there could be a failure on the ignitor or ballast.

Colour 1-wheel

This wheel contains 9 dichroic filters and an open.

Colour 2-wheel

This wheel contains 8 replaceable „SLOT&LOCK" dichroic filters + open.The colour-wheel can be positioned between two adjacent colours in any position. It is also possible to rotate the colour- wheel continuously at different speeds („Rainbow effect" in both directions).

Static gobo-wheel

The static gobo wheel includes 9 replaceable „SLOT&LOCK" metal gobos + open ,gobo-shake function possible.

Rotating gobo-wheel

The rotating gobo-wheel includes 7 gobos rotating in both directions,indexable,replaceable „SLOT&LOCK" dichroic glass gobos + open position.

3-facet rotating prism

The 3-facet replaceable prism rotating in both directions at different speeds.

Iris

Motorized iris for different beam diameter, variable pulse effects.

Frost

Separate, variable frost.

Focus, Zoom
Motorized focus enables the beam to be focused anywhere on stage at different beam angles 15°, 18°, 22°, provided by the special zoom.

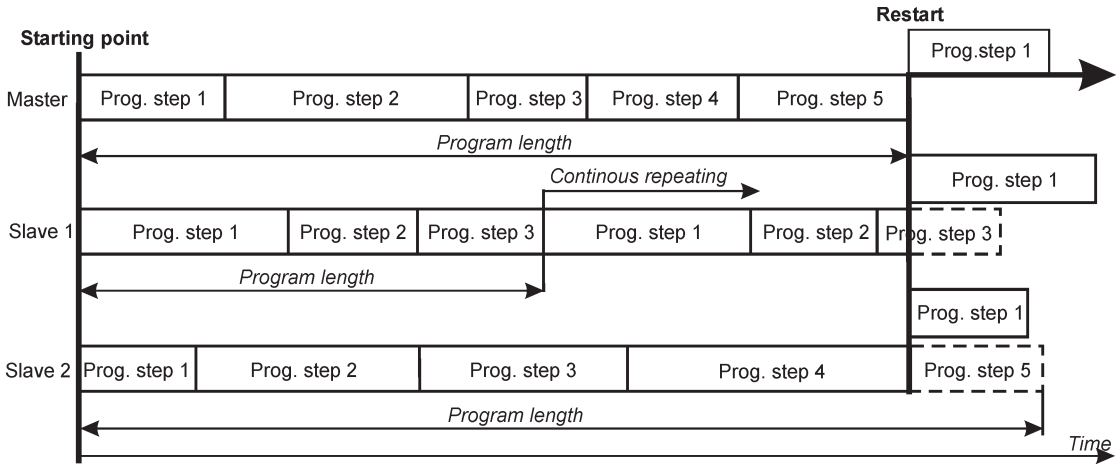
Dimmer/Shutter/Strobe
Smooth 0 - 100 % dimming is provided by the combined mechanical dimmer/shutter unit. This unit may also be used for strobe effect (1 - 10 ashes per second)

Fans
The ColorSpot 575 AT is cooled by 4 axial fans - 3 in the projector head and one in the base. The speed of the fan (and of course the noise) can be continuously reduced if very quiet performance is required.

By the Control Board using the **„FAnS"** function you can choose the 2 types of the fan speed operating modes.

7. Stand - alone mode

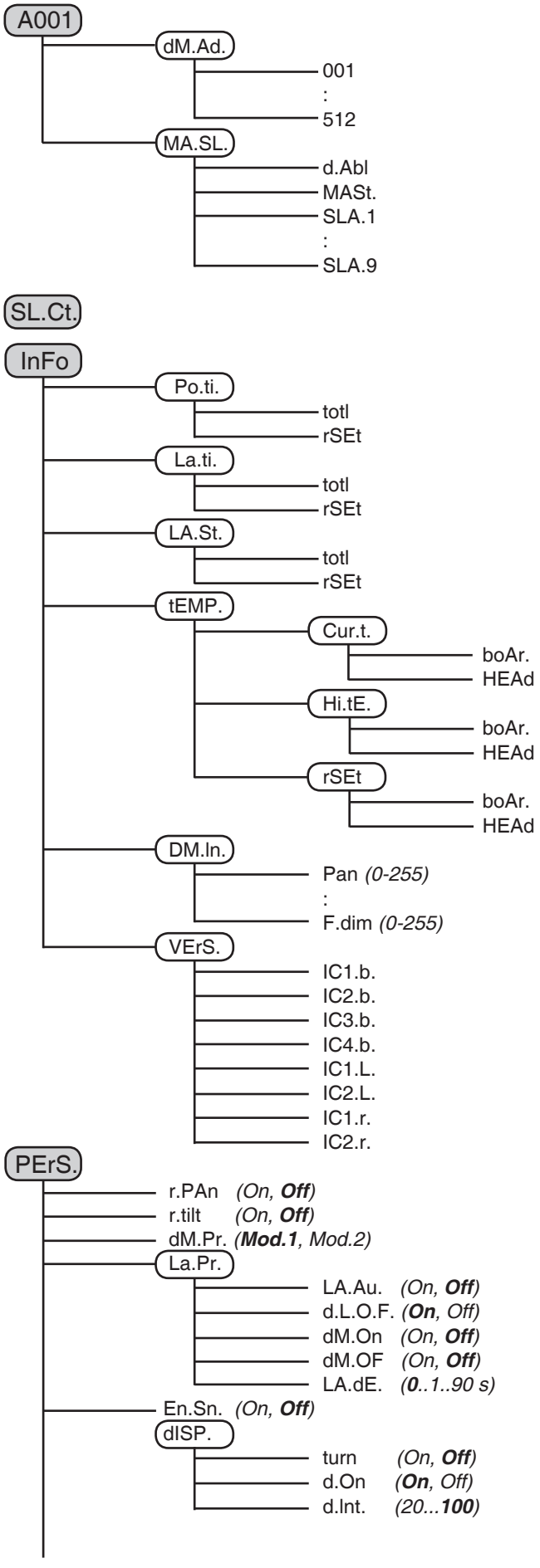
The fixtures on a data link are not connected to the controller but can execute pre-set programs which can be different for every fixture. To set the program to be played, see the „Stand-alone setting" (menu **„St.AL."**).
„Stand-alone operation" can be applied to the single fixture (the fixture may be set to the master /slave mode or controller mode) or to multiple fixtures operating synchronously.
Synchronous operation of multiple fixtures requires that they must be connected on a data link and one of them is set as a master (master mode) and the rest as the slaves (slave mode). The slaves are assigned to SLA1-SLA9 and on the certain slave address can be connected only one fixture.To set the fixture as the master or slave, see the „Addressing" (menu **„A001"**).
If the master fixture runs a reset, switches On/Off the lamp or plays test (program), all slaves will execute these acts too (e.g. if the master fixture has switched the lamp off, no slaves can switch the lamp on)!
The master fixture starts simultaneous program start in the other slave fixtures.All fixtures have a definite, synchronized starting point when playing back their programs. The number of running program is the same in all slaves and depends on the master's choice (menu **„St.AL."**). Every fixture runs its program repeatedly, starting the program step No.1 when requested by the master.
For example:
If the slave fixture has a shorter program length, it will continously repeat its program until the master fixture finishes its own program and restarts its program running (slave 1- prog.step 3 will not be finished).
If the slave fixture has a longer program length, it will restart at prog. step 1 before it completes all its prog. steps (slave 2 - prog. step 5 will not be played) - see the picture bellow.

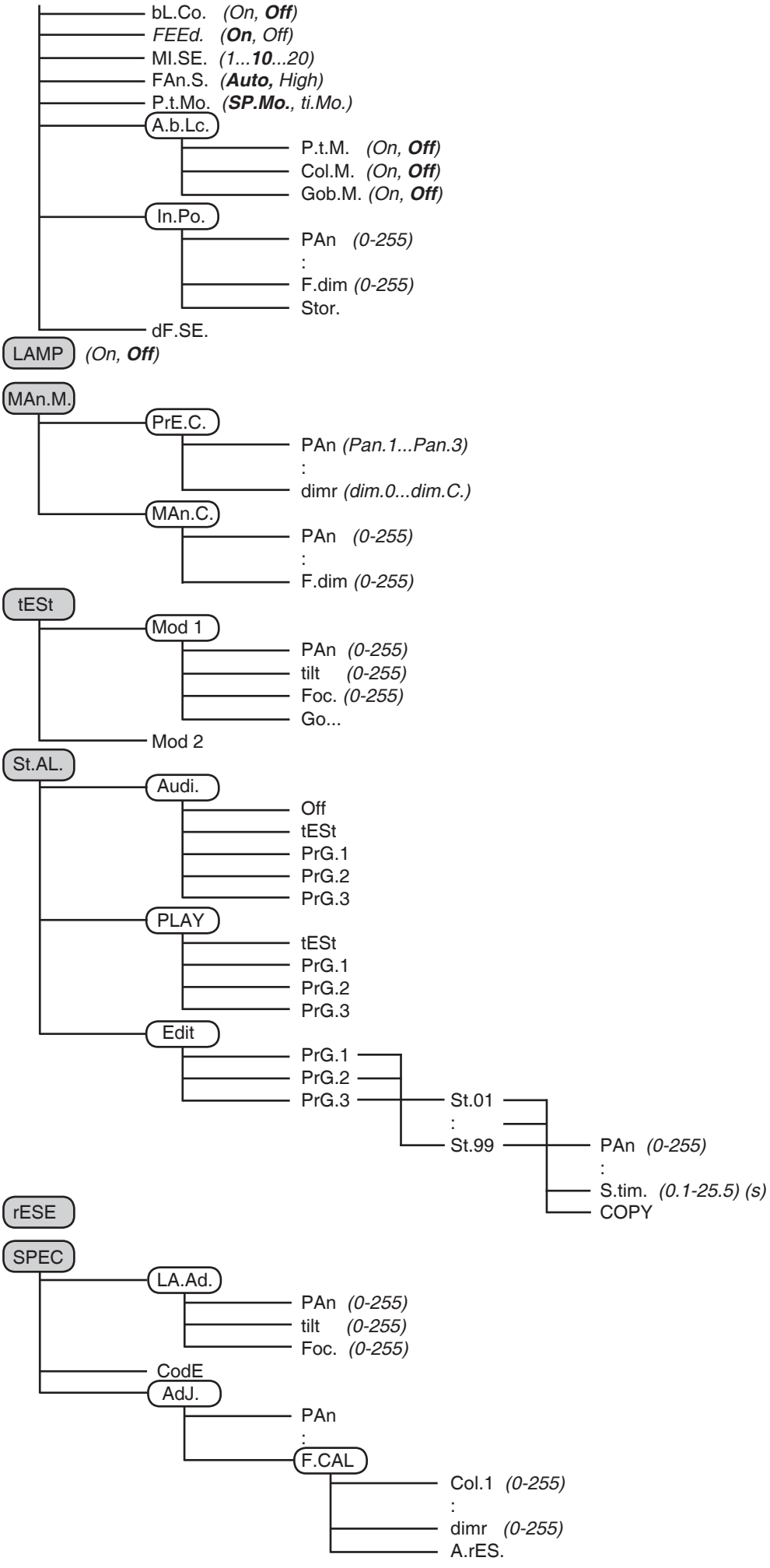


Note: Disconect the fixtures from the DMX controller before master/slave operating, otherwise data collisions can occur and the fixtures will not work properly!

8. Control menu map

Default settings = Bold print




bL.Co. (On, Off)
FEEd. (On, Off)
MI.SE. (1...10...20)
FAn.S. (Auto, High)
P.t.Mo. (SP.Mo., ti.Mo.)
A.b.Lc.
P.t.M. (On, Off)
Col.M. (On, Off)
Gob.M. (On, Off)
In.Po.
PAn (0-255)
:
F.dim (0-255)
Stor.
dF.SE.
LAMP (On, Off)
MAn.M.
PrE.C.
PAn (Pan.1...Pan.3)
:
dimr (dim.0...dim.C.)
MAn.C.
PAn (0-255)
:
F.dim (0-255)
tESt
Mod 1
PAn (0-255)
tilt (0-255)
Foc. (0-255)
Go...
Mod 2
St.AL.
Audi.
Off
tESt
PrG.1
PrG.2
PrG.3
PLAY
tESt
PrG.1
PrG.2
PrG.3
Edit
PrG.1
PrG.2
PrG.3
St.01
:
St.99
PAn (0-255)
:
S.tim. (0.1-25.5) (s)
COPY
rESE
SPEC
LA.Ad.
PAn (0-255)
tilt (0-255)
Foc. (0-255)
CodE
AdJ.
PAn
:
F.CAL
Col.1 (0-255)
:
dimr (0-255)
A.rES.

9. Control menu

The control panel situated on the front panel of the base offers several features. You can simply set the DMX address, read the number of the lamp or unit hours, switch On and Off the lamp, run test, make a reset and also use many functions for setting fixture behaviour.

Control elements on the control board:

[MODE] button-leaves menu without saving changes.
[ENTER] button- enters menu, confirms adjusted values and leaves menu.
[UP] button and **[DOWN]** button- moves between menu items on the the same level, sets values.

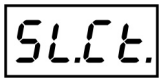
After switching the fixture on, the display shows the initial screen:

Use **[UP]**, **[DOWN]** to browse through the menu. To select a function or submenu, press **[ENTER]**.

9.1 Fixture Address

Use this menu to set the DMX address of the fixture or set the fixture as a Master (Slave).

dM.Ad. - DMX addressing. Select this submenu to set DMX start address.
MA.SL. - Master/slave addressing. Select this submenu to set the fixture as a Master or Slave (Slave1- Slave 9).
Option **„d.AbL"** deactivates master/slave setting.

 9.2 Slave control

This function allows you to control the slaves from the master's control panel in a master/slave operation.
Select this function from the main menu and press **[ENTER]**. Browse the list of all connected slaves („SL.C.1" - „SL.C.9") by pressing **[UP]** or **[DOWN]**. Select the desired slave and press **[ENTER]**-button.The matching slave control panel is available from the master control panel.
If no slave is connected to the master, massages „SL.C.1", „SL.C.2", „SL.C3"... „SL.C.9" still round repeat.
Note: This function is available from the master fixture only.

9.3 Fixture informations

Use this menu to read an useful information about the fixture.

Po.ti. - **Power on time**. Select this submenu to read the number of operation hours.
totL - The function shows the total number of the operation hours since the ColorSpot 575 AT has been fabricated.
rSEt - The function shows the number of the operation hours that the ColorSpot 575 AT has been powered on since the counter was last reset. In order to reset this counter to 0 you have to hold **[UP]** and **[DOWN]** and press the **[ENTER]**.

La.ti. - **Lamp on time**. Select this submenu to read the number of the operation hours with the lamp on.
totL - The function shows the total number of the operation hours with the lamp on since the ColorSpot 575 AT has been fabricated.
rSEt - The function shows the number of the operation hours with the lamp on that the ColorSpot 575 AT has been powered on since the counter was last reset. In order to reset this counter to 0 you have to hold **[UP]** and **[DOWN]** and press the **[ENTER]**.

LA.St. - **Lamp strikes**. Select this submenu to read the total number of the lamp strikes.
totL - The function shows the total number of the lamp strikes since the ColorSpot 575 AT has been fabricated.
rSEt - The function shows the number of the lamp strikes since the counter was last reset. In order to reset this counter to 0 you have to hold **[UP]** and **[DOWN]** and press the **[ENTER]**.

tEMP - **Fixture temperatures**. Select this submenu to read the fixture temperatures (°C). Please note that the outside temperature should not exceed 40° C.
Cur.t. - **Current fixture temperatures**.
boAr. - Current temperature on the main board in the base of the fixture. Temperatures below 66°C are not critical. 66°C and more lead to the lamp being switched off and the fixture goes to „low power mode". Before switching the lamp on again (after 5 minutes), run a total fixture reset.
HEAd - Current temperature of the head inside. Temperatures below 83°C are not critical. 83° C and more lead to the lamp being switched off and the fixture goes to „low power mode". Before switching the lamp on again (after 5 minutes), run a total fixture reset.
Hi.tE. - **Maximum fixture temperatures**.
boAr. - The function shows the max. temperature on the main board since the ColorSpot 575 AT has been fabricated.
HEAd - The function shows the max.temperature of the head inside since the ColorSpot 575 AT has been fabricated.
rSEt - **Maximum resetable temperatures.**
boAr. - The function shows the maximum temperature on the main board since the counter was last reset. In order to reset the counter to 0 you have to hold **[UP]** and **[DOWN]** and press the **[ENTER]**.

HEAd - The function shows the maximum temperature of the head inside since the counter was last reset. In order to reset the counter to 0 you have to hold **[UP]** and **[DOWN]** and press the **[ENTER]**.

DM.In. - **Readout of DMX values**. Select this function to read DMX values (0-255) of each channel received by the fixture.

PAn	a coarse pan movement	**G.rot.**	a gobo indexing and rotation
F.PAn	a fine pan movement	**F.G.ro.**	a fine gobo indexing
tilt	a coarse tilt movement	**Pris.**	a prism
F.tilt	a fine tilt movement	**P.rot.**	a prism rotation
SpEd	a pan/tilt speed	**FroS.**	a frost filter
P.t.SE.	a pan/tilt macro selection	**F.Fro.**	a fine frost
P.t.SP.	a pan/tilt speed	**Iris**	an iris
Func.	a special function	**F.Iri.**	a fine iris
Col.1	a colour wheel 1	**Zoom**	a zoom
F.Co.1	a fine colour wheel 1	**Foc.**	a focus
Col.2	a colour wheel 2	**F.Foc.**	a fine focus
F.Co.2	a fine color wheel 2	**Stro.**	a shutter,strobe
S.Gob.	a static gobo wheel	**dimr**	a dimmer
F.S.Go.	a fine static gobo wheel	**F.dim.**	a fine dimmer
r.Gob.	a rotating gobo wheel		

VErS. - **Software version**. Select this function to read the software version of processors:

IC1.b. - Main processor on the main board in the fixture base
IC2.b. - Pan processor on the main board in the fixture base
IC3.b. - Tilt procesor on the main board in the fixture base
IC4.b. - EEprom on the main board in the fixture base
IC1.L. - Processor 1 in the left arm of the fixture
IC2.L. - Processor 2 in the left arm of the fixture
IC1.r. - Processor 1 in the right arm of the fixture
IC2.r. - Processor 2 in the right arm of the fixture

9.4 Personality

Use this menu to to modify ColorSpot 575 AT operating behavior.

r.PAn - **Pan reverse**.Select this function to invert the pan movement.

r.tilt - **Tilt reverse**. Select this function to invert the tilt movement.

DM.Pr. - **DMX preseting**. Select this function to set desired effects assigning to the channels. Please refer to the chapter „DMX protocol" for detail description.

LA.Pr. - **Lamp presetting**. Select this menu to change the lamp „behaviour".

LA.Au. - Select this function to turn the lamp on automatically after switching the fixture on.

d.L.OF. - Select this function to switch off the lamp via DMX.

dM.On - This function allows you to strike the lamp automatically after 26 seconds if DMX signal is present on the data link. If the ignition is unsuccessfull (e.g.lamp is too hot), the fixture will try to ignite the lamp after next 26 s.This process will repeat until the lamp lights.

dM.OF. - This function allows you to switch Off the lamp automatically after 2 minutes if DMX signal is missing on the data link.

LA.dE. - Lamp ignition delay. This function allows you to set the time delay (0-90s) before the lamp will be ignited. This setting will not affect starting the lamp direct from the control panel (menu „Lamp On/Off").

En.Sn. - **Switching on/of the lamp light sensor**. Select this function to switch the lamp light sensor on or off.The option „On" is for the standard operation.

Important: The option „Off" is for „emergency operation" only if the lamp light sensor is defective and you will wait for a service intervertion! If the lamp light sensor is switched off and at switching the lamp on the electronics will still try to ignite the lamp until it shines (even when the lamp is damaged or absent), on this account some electronics parts could be damaged!

DiSP. - **Display adjusting**. This function allows you to change the display settings.

turn - Select this function to turn the display by 180°.

d.On - This function allows you to keep the display on or to turn off automatically 2 minutes after last pressing any button on the control panel.

d.Int. - Select this function to adjust the display intensity (20-min.,100-max.).

bL.Co. - **Blackout during movement correction**. Select this function to enable the blackout during the head movement correction (if the moving head lost its right pan/tilt position for a short moment).

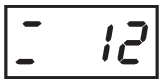
FEEd - **Pan/Tilt feedback**.This function allows to return the mowing head to the required pan/tilt position after changing the position by external force (e.g.by stroke).

Be careful, the Pan/Tilt Feedback OFF is not the standard operation and the head of the fixture can be demaged!

Note: If the feedback was switched off, the pan/tilt-position is changed by an external force and the feedback is switched on again, the moving head might not to be synchronized with the DMX signal. You have to make a reset in order to synchronize the moving head with the DMX signal.

Mi.SE. - **Microphone sensitivity**. Select this function to adjust the microphone sensitivity from 1 (maximum) to 20 (minimum). If the sensitivity is correctly adjusted, the upper segment of the first digit blinks in the bass beat.
Examples:

underexited



right level

overexited

(upper segment blinks via the bass rhythm)

Fan.S. - **Fan speed operating modes**. By using this function you can choose 2 types of the fan speed operating modes.
Auto - The fans automatically raise their speed in order to control inside temperature of the head, if the temperature inside increases about certain level (the low fan speed reduces the cooling of the lighting). This cycle can repeat several times until the temperature inside is on a suitable level.
HIGH - The cooling fans work on max. speed (max. cooling). This mode we recommend for high ambient temperature (30°C and more).

P.t.Mo. - **Pan/tilt movement mode**. Use this menu to set the character of the pan/tilt movement.
ti.Mo. - Time mode. Pan and tilt will move with different speeds and they will come at the same time to end point (pan and tilt sets its optimal speed).
SP.Mo. - Speed mode. Pan and tilt will move with the same speed as adjusted by the channel 5 (Pan/Tilt speed). E.g. pan will come to the end point and wait for tilt, which has longer track.

A.blc. - **Automatic blackout**. Use this function if you wish to close the light output during effect changes.
P.t.M. - This function closes the light output during pan/tilt changes.
Col.M. - This function closes the light output during colour wheel 1/wheel 2 changes.
Gob.M. - This function closes the light output during gobo wheel 1/wheel 2 changes.

In.Po. - **Init effect positions**. Select this function to adjust all effects to the desired initial positions. After switching the fixture on (if DMX is not connected),all effects will move to initial positions. Use the **[UP]** and **[DOWN]** buttons to select desired channel and press **[ENTER]**. Set the effect to the desired position using **[UP]** and **[DOWN]** buttons and confirm by pressing **[ENTER]**. After having adjusted required effects, select „Stor." to save all initial values to the memory.

dF.SE. - **Default Settings**. Select this option to reset all fixture personalities to the default values.

9.5 Lamp On/Off

Use this option in order to switch on/off the lamp.It is also important to note, that the lamp is cold restrike type, that means, that it has to be cold before striking.

9.6 Manual mode

Select this menu to call up presetted positions of channel effects or direct control channel effects.
PrE.C. - Presetted effect control. Select this menu to call up presetted positions of the channel effects.
Man.C. - Manual effect control. Select this menu to control effects by control buttoms on the control board.

PAn	a coarse pan movement	**G.rot.**	a gobo indexing and rotation
F.PAn	a fine pan movement	**F.G.ro.**	a fine gobo indexing
tilt	a coarse tilt movement	**Pris.**	a prism
F.tilt	a fine tilt movement	**P.rot.**	a prism rotation
SpEd	a pan/tilt speed	**FroS.**	a frost filter
P.t.SE.	a pan/tilt macro selection	**F.Fro.**	a fine frost
P.t.SP.	a pan/tilt speed	**Iris**	an iris
Func.	a special function	**F.Iri.**	a fine iris
Col.1	a colour wheel 1	**Zoom**	a zoom
F.Co.1	a fine colour wheel 1	**Foc.**	a focus
Col.2	a colour wheel 2	**F.Foc.**	a fine focus
F.Co.2	a fine color wheel 2	**Stro.**	a shutter,strobe
S.Gob.	a static gobo wheel	**dimr**	a dimmer
F.S.Go.	a fine static gobo wheel	**F.dim.**	a fine dimmer
r.Gob.	a rotating gobo wheel		

9.7 Test sequences

Use this menu to to run a special demo-test sequences without an external controller, which will show you some possibilities of using ColorSpot 575 AT.
Mod. 1 - **Mode 1**. This mode is suitable for projections on the wall, ceiling or ground without any head movement.
Mod. 2 - **Mode 2.** This mode uses all ColorSpot 575 AT functions including pan/tilt movement and therefore is good for a complete introduction of the fixture.

9.8 Stand-alone setting

Use this menu to set options for stand-alone mode as a selection of the playing program,programming and modifying current programs.

Audi - **Music trigger**. Select this function to enable the sound control of the running programs via the built-in microphone.

Auto - **Presetting playback**. This function allows you to select the program which will be played in the stand-alone mode after switching the fixture on. Selected program will be played continuously in a loop.

- **d.Abl** - The option disables „Auto" function.
- **tESt** - The option will start built-in test program.
- **PrG. 1** - The option will start created program No. 1
- **PrG. 2** - The option will start created program No. 2
- **PrG. 3** - The option will start created program No. 3

Note: If the fixture operates in the controller mode (DMX controller is connected) and any program from this menu is selected, in this case the fixture will not respond to the DMX controller after switching on and will play selected program.

PLAY - **Playing program**. Select this menu to run a bilt-in program or the 3 freely-programmable programs in a loop.

- **tESt** - The option starts built-in test program.
- **PrG.1** - The option starts created program No. 1
- **PrG.2** - The option starts created program No. 2
- **PrG. 2** - The option starts created program No. 3

Select the program you wish and press **[ENTER]**. The selected program starts running. By Pressing **[ENTER]** again is possible to pause the program running.

Edit - **Editing program**. Select this menu to edit or create the program. The ColorSpot 575 AT has one built-in program and the 3 free programs, each up to 99 steps. Each program step has a step time. Step time-the time, during which effects last in the current step.

If the fixture is set as a master, then you may edit any program in the slaves. You can't edit programs on the slave fixtures from their control panels if the master fixture is switched on and connected to the slaves (editing is possible by the master control panel only).

Procedure:

1. Press **[UP]** or **[DOWN]** to select the program you want to edit („PrG.1" - „PrG.3") and press **[ENTER]**.
2. Press **[UP]** or **[DOWN]** to select the desired fixture („MASt." - „SLA.9") and press **[ENTER]**-button.
3. Press **[UP]** or **[DOWN]** to select the desired program step ("St.01" - "St.99") and press **[ENTER]**-button.
4. Press **[UP]** or **[DOWN]** to select the desired item and press **[ENTER]**-button. Now you can edit by **[UP]** or **[DOWN]** buttons the DMX value (0-255) for selected item:

P.End.	a total number of the program steps (value 1-99). **This value you must set before start programming** (e.g. if you want to create program with the 10 steps, set P.End=10).
PAn	a pan movement
tilt	a tilt movement
SpEd	a pan/tilt speed
P.t.SE.	a pan/tilt macro selection
P.t..S.P.	a pan/tilt macro speed
Func.	a special function
Col.1	a colour wheel 1
F.Co.1	a fine colour wheel 1
Col.2	a colour wheel 2
F.Co.2	a fine color wheel 2
S.Gob.	a static gobo wheel
F.S.Go.	a fine static gobo wheel
r.Gob.	a rotating gobo wheel
G.rot.	a gobo indexing and rotation
S.tim.	a step time, value 0,1-25,5 seconds
COPY.	a copying the current prog. step to the next prog. step. If the last prog. step is copied to the next prog. step, parameter **„P.End"** is increased about one by itself (except step 99).
F.G.ro.	a fine gobo indexing
Pris.	a prism
P.rot.	a prism rotation
FroS.	a frost filter
F.Fro.	a fine frost
Iris	an iris
F.Iri.	a fine iris
Zoom	a zoom
Foc.	a focus
F.Foc.	a fine focus
Stro.	a shutter,strobe
dimr	a dimmer
F.dim.	a fine dimmer

5. Press **[ENTER]**-button to confirm adjusted value .
6. Press **[MODE]**-button, select next prog. step and repeat this procedure (steps 4 - 6).

9.9 Reset functions

This option enables the ColorSpot 575 AT to index all effects (functions) and return to their standard positions.

SPEC. 9.10 Special functions

Use this menu for special services like adjusting lamp or adjusting effects.
LA.Ad. - **Lamp adjustment**. This function can be used when you make the fine adjustment of the lamp. If you select this function, all effects will be canceled, shutter will be opened and the dimmer intensity will be set onto 100%.By using the options **„PAn, tilt, Foc."** you can focus the light on a at surface (wall) and perform the fine lamp adjustment.

CodE - **Code**.This function contains identification hexadecimal code (0000-FFFF) for the fixture, which is used for the master/slave operation.

AdJ. - **Effect adjustment**. By this function you can calibrate and adjust the effects to their standard/right positions. Disconect the DMX controller from the fixture and select **„AdJ."** menu. The display shows step by step effects by which you can adjust the fixture to the required position before the function calibration(DMX controller must be disconnected). When the positioning is finished, select **„F.CAL."** and press **[ENTER]**:

1. Calibration via the control board

Disconnect DMX controller from the fixture. Press **[ENTER]** and use **[UP]** and **[DOWN]** in order to display the following items: **„Col.1, Col.2, S.Gob., r.Gob.G.rot., Iris, dimr"** for very smooth function calibration. Select one of them, press **[ENTER]** and use the **[UP]** and **[DOWN]** in order to adjust their right value from 0 to 255. Then press **[ENTER]** to confirm or **[MODE]** to cancel and return to the menu. This can be repeated for each calibration parameter if it is required. When the calibration is finished, it is necessary to use the **„A.rES"** function in order to write the calibration values to the memory (EPROM) and to make a reset in order to check the newly adjusted positions of the colour, gobo wheels and dimmer. When the reset of the fixture is finished, the display will show the **„F.CAL"** message. Press **[ENTER]** to repeat the calibration or **[MODE]** to return to the **„AdJ."** menu.

2. Calibration via the external controller

Connect the DMX controller to the fixture, press **[ENTER]** and the **[UP]** and **[DOWN]** buttons in order to display the following items: **„Col.1, Col.2, S.Gob., r.Gob.G.rot., Iris, dimr"**. Select one of them and press **[ENTER]**.
Now you can calibrate this effect by your controller. The DMX calibration protocol is described in the table mentioned below.
DMX calibration protocols:

Effect	Mode 1	Mode 2	Mode 3	Mode 4
„Col.1"- Colour wheel 1	channel 28	channel 20	channel 30	channel 22
„Col.2"- Colour wheel 2	channel 29	channel 21	channel 31	channel 23
„S.Gob."-Static gobo wheel	channel 30	channel 22	channel 32	channel 24
„r.Gob."- Rotatinggobo wheel	channel 31	channel 23	channel 33	channel 25
„G.rot." - Gobo rotation	channel 32	channel 24	channel 34	channel 26
„IriS" - Iris	channel 33	channel 25	channel 35	channel 27
„dimr"- Dimmer	channel 34	channel 26	channel 36	channel 28

After having calibrated required effects, press **[ENTER]** to confirm (or **[MODE]** to cancel and return to the menu without reset by the **„A.rES."** function) and use the **„A.rES."** function in order to write the calibration values to the memory (EEPROM) and to make a reset in order to check the new adjusted positions of the colour, gobo and effect wheels .

10. Low power mode

This mode omits fixture reset after switching the fixture on and lowers motor powers of the fixture. „Power down mode" is useful in special casech.g. if the fixture is in a ight case and you want to set its DMX address without taking it out from the case. To enter „Power down mode", press and hold **[UP]** and **[DOWN]** and at the same time switch on the Power switch. The following message appears on the display: **„P.d.Mo."**

Press **[ENTER]** to activate „Low power mode" without fixture reset. Now you can set features and behaviour of the fixture by using **„A001"** menu and **„Pers."** menu. If you want to go „normal operation mode", execute fixture reset.

Note: All motors (except pan and tilt motors) in „Low power mode" are deactivated and switching the lamp on from the control panel is blocked.

11. Error and information messages

HEAt
This message appears if you try to switch on the lamp within 5 minutes after having switched it off (the lamp is too hot). The message will appear on the display if the lamp doesn't ignite within 28 seconds. The ColorSpot 575 AT will store this information and automatically ignite the lamp when the 5 minutes period has expired.
Caution: The message is disabled if the lamp light sensor (function „En.Sn.") is switched Off (only if the lamp was turned Off and On within 5 minutes, the message „*HEAt*" will appear).

LA.Er.
The ignition of the lamp is seven times unsuccessful (the „*HEAt*" message appeared six times before), and the display shows „*LA.Er*", meaning that the lamp could be damaged or even missed, the fixture is overheating (this can occur if the ambient temperature is 40° C or more) or there could be a failure on the ignitor or ballast. Please place or replace the lamp, check the ambient temperature or contact your dealer if the situation was not caused by the lamp.
Caution: The message is disabled if the lamp light sensor (function „En.Sn.") is switched Off.

Mb.Er.
This messsage informs you that the main PCB does not communicate correctly with the Control Board.

C.I.Er. (color-wheel 1 error)
This messsage will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The color-wheel is not located in the default position after the reset.

C.2.Er. (color-wheel 2 error)
This messsage will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The color-wheel is not located in the default position after the reset.

r.G.Er. (rotating gobo-wheel error)
The message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The rotating gobowheel is not located in the default position after the reset.

i.G.Er. (rotating gobo indexing error)
The message will appear after the reset of the fixture and if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The rotating gobo is not located in the default position after the reset.

S.G.Er. (static gobo-wheel error)
This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The static gobowheel is not located in the default position after the reset.

Ir.Er. (iris error)
This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The iris is not located in the default position after its reset.

Ft.Er.
This error message informs you that the fixture was overheating (occured if the ambient temperature is 40° C or more) and that the relay switched off the lamp. This message will appear on the display until the temperature will be on a suitable level, then the display will show the massage „*HEAt"* meaning the lamp is too hot (explanation see above).

Fr.Er.
This message will appear if the frequency of the main is not standard 50 or 60 Hz. This message can appear as a result of the interference during the lamp starting (if the lamp or igniter is old) or as a result of the interference by neighbouring devices. **In these cases the message does not affect the fixture operating!**

Sn.Er.
This message appears if the lamp lighting sensor is failed.

PoEr
This message will appear if the fixture was shortly disconnect from the main.

PA.Er. (Pan-yoke movement error)
This message will appear after the reset of the fixture if the yoke.s magnetic-indexing circuits malfunction (sensors failed or magnet missing) or the stepping motor is defective. (Or its driving IC on the main PCB). The yoke is not located in the default position after the reset.

ti.Er. (TILT-head movement error)
This message will appear after the reset of the fixture if the head.s magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping motor is defective. (Or its driving IC on the main PCB). The head is not located in the default position after the reset.

MA.Er. (Master error)
The message informs you that the fixture was addressed as a master and DMX signal is connected to its input.Disconnect the DMX controller from fixture's input and address the fixture as the master again.

t.M.Er. (Temperature measuring error)
The message informs you that the communication betwen the head and the main board in the fixture base was cut off (or the head temperature sensor is defective) and the lamp was automatically switched off.

12. Technical specifications

Power supply:

EU-model: Voltage:.....208/230/240V AC, 50/60Hz ~
Fuse:.....T 6,3A@230V

US-model: Voltage:.....100/120/208/230/240V AC, 50/60Hz ~
Fuse:.....T 10A@120V
Power consumption:.....760 VA

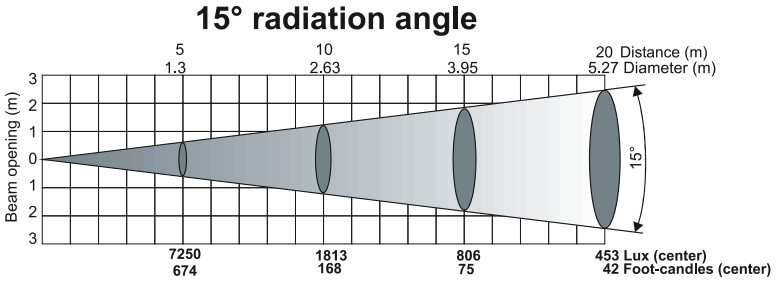
Lamp: Philips MSR 575/2, 95V/575W GX-9,5

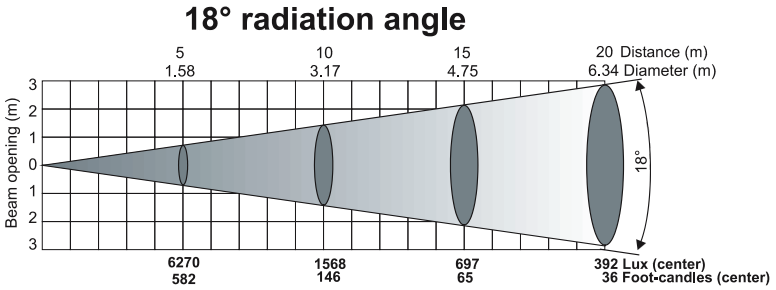
Optical System:

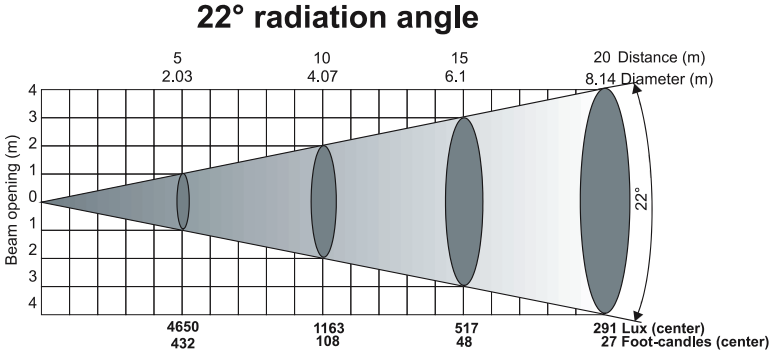
- High luminous-efficiency glass re ector
- focus lens and multistep zoom lenses system
- beam angles: 15°, 18°, 22°
- All lenses are anti-re ection coated

Beampath:

Lamp: MSR 575W/2







Colours:
Colour wheel 1: 9 dichroic filters + open
Colour wheel 2: 8 replaceable 'SLOT&LOCK' dichroic filters (including 3200 K and UV filter) + open

Static gobo wheel:

9 replaceable 'SLOT&LOCK' metal gobos plus an open position, outside diameter=26,9mm, image diameter=22,5mm, aluminium, thickness=0,5 mm

Rotating gobo wheel:

- 6 dichroic glass gobos and one glass gobo rotating in both directions at different speeds
- Gobo indexing
- Rotating gobo-wheel cont. rotation
- Multicolor dichroic glass gobos: outside diameter=26.8mm, thickness=1,1mm, high temperature boro oat or better glass, image diameter=22 mm
- Glass gobo: outside diameter=26,8 mm, max.thickness=4mm, high temperature boro oat or better glass
- All rotating gobos are easily replaceable

Strobe: Strobe effect with variable speed (max.15 ashes per second)

Dimmer: Smooth dimmer from 0 - 100 %

Prism/Frost filter:

3-facet-prism (rotating in both directions at different speeds) can be replaced with another prism

Frost filter: Separate,variable frost filter

Focus/Zoom:
- Remotely controllable via DMX
- Motorized multi-step zoom with three different apertures (15°,18°,22°)

Iris: Motorized (steplessly adjustable) iris for different beam diameters

Motors: 16 high quality stepping-motors controlled by microprocessors

Electronics:
- Addressing,special functions setting, effects calibration via control panel with 4-digit LED display
- Readout fixture and lamp usage, receiving DMX values, temperature, etc
- Built-in analyzer for easy fault finding, error messages
- Remotely switching of the lamp
- Bilt-in demo sequences
- Black-out while head moving or gobo/color changing
- Silent fans cooling, remotely controllable speed of fans
- Self-resetable thermo-fuse
- Master/slave operation
- Digital serial input DMX-512
- 4 control-channels presettings (27,19, 29, 21 control channels)

Pan/Tilt:
- Pan movement range 530°
- Tilt movement range 280°
- Max.Pan speed 157.27°/sec.
- Max.Tilt speed 108.95°/sec.
- Pan/tilt control accuracy: 0.00415°/0.00415°
- 16 bit movement resolution
- Automatic Pan / Tilt position correction
- Remotely controllable speed of pan/tilt movement for easy programming
- Movement control:tracking and vector

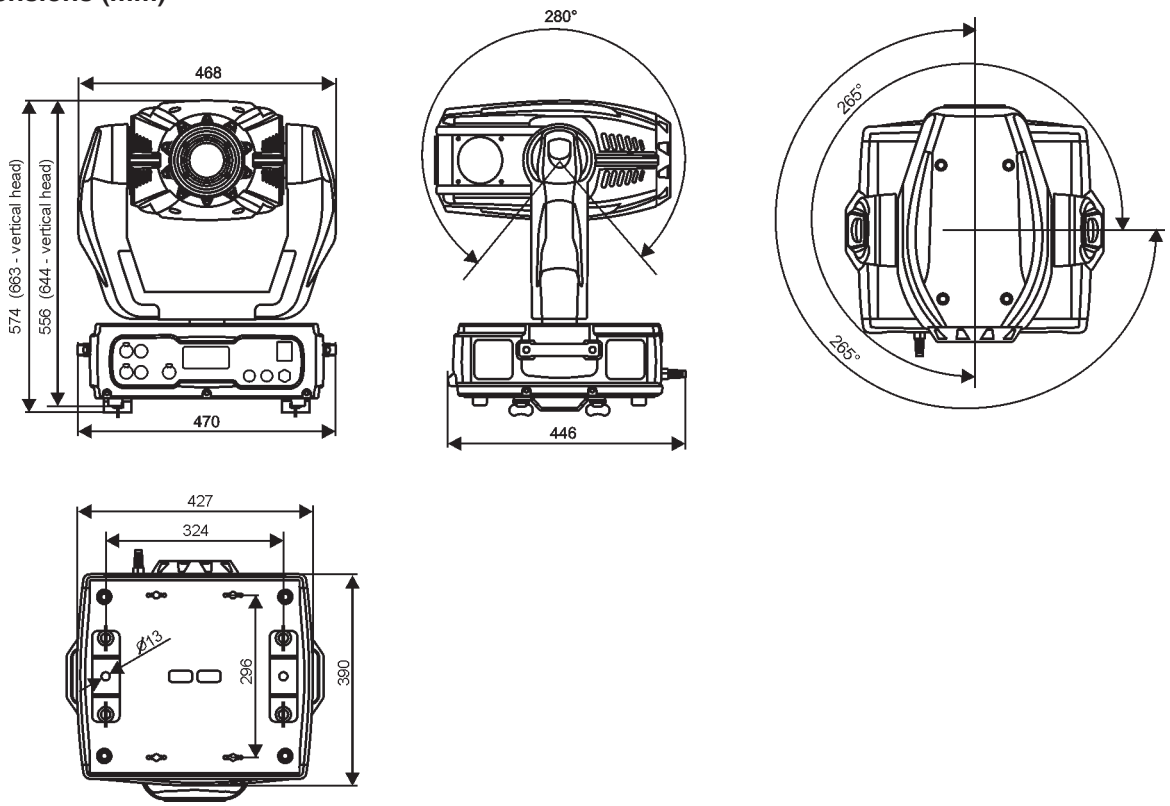
Rigging:
- Stands directly on the oor
- Mounts horizontally or vertically with 2 Omega brackets
- 2 truss orientation
- Safety chain/cord attachment point

Temperatures:
- Maximum ambient temperature: 40° C
- Maximum housing temperature: 80° C

Minimum distances:t

- Min. distance from ammable surfaces: 0,7m
- Min. distance to lighted object: 2,0m

Dimensions (mm)



Weight (net): - EU version: 32 kg
- US version: 36 kg

Accessories

- Accessories gobo-set 12 15050021
- Omega holder (2 pieces) 99010420

13. Maintenance and cleaning

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke- uid residues must not build up on or within the fixture. Otherwise, the fixture. s light-output will be significantly reduced. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to function reliably throughout its life.
A soft lint-free cloth moistened with any good glass cleaning uid is recommended, under no circumstances should alcohol or solvents be used!

DANGER !
Disconnect from the mains before starting any maintenance work

The front objective lens will require weekly cleaning as smoke- uid tends to building up residues, reducing the light-output very quickly. The cooling-fans should be cleaned monthly.
The gobos may be cleaned with a soft brush. The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet.
The dichroic colour-filters, the gobo-wheel and the internal lenses should be cleaned monthly.
There are no serviceable parts inside the device except for the lamp and the fuse.
Please refer to the instructions under “Fitting/Exchanging the lamp”.
Maintenance and service operations are only to be carried out by authorized dealers.

Replacing the fuse

If the lamp burns out, the fine-wire fuse of the device might fuse, too. Only replace the fuse by a fuse of ame type and rating.
Before replacing the fuse, unplug mains lead.

Procedure:

1) Unscrew the fuseholder on the rear panel of the base with a fitting screwdriver from the housing (anticlockwise).
2) Remove the old fuse from the fuseholder.
3) Install the new fuse in the fuseholder.
4) Replace the fuseholder in the housing and fix it.